

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION REPORT

I. HEADING

Date: May 29, 1998

From: Irmee Huhn, OSC, Region II  
Removal Action Branch

*Irmee Huhn*

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START

Subject: Pyridium Mercury Disposal Site No. 1 (Pyridium 1)  
Village of Harriman, Orange County, New York

POLREP NO.: Six (6)

II. BACKGROUND

Site No.: EV  
Response Authority: CERCLA  
NPL Status: Non-NPL  
State Notification: NYSDOH notified  
Action Memo Status: Signed 09/29/95, 9/25/97 and 3/6/98  
Start Date: 1/9/95, 9/30/97, and 3/18/98  
Demobilization Date: 4/5/95, on-going  
Completion Date: 4/7/95, on-going

III. SITE INFORMATION

A. Incident Category: Illegal dump

B. Site Description

1. Site location

The Pyridium Mercury Disposal Site No. 1 (Pyridium 1) was a trailer park located at the intersection of State Route 17M and Harriman Heights Road in the Village of Harriman, Orange County, New York. Five mobile home trailers were located at the trailer park. All the trailers were occupied as residential dwellings.

A white clay-like material discovered at the trailer park, was used to fill low-lying areas of a wetland. This material was reportedly a waste product from the production of niacinamide by the Pyridium Corporation during the 1940's and 1950's. Nepera Inc. of Harriman, New York, currently occupies and operates the facility previously operated by the Pyridium Corporation.

B. Preliminary Assessment/Site Inspection Results

On October 20, 1994, the United States Environmental Protection Agency (EPA) collected a composite waste sample for waste characterization and mercury speciation. The sample was analyzed for Target Compound List (TCL) parameters, Target Analyte List (TAL) parameters and toxicity by the Toxicity Characteristic Leachate Procedure (TCLP).

Although the TCLP results are below regulatory limits, the TAL analytical results indicate the presence of mercury at an estimated concentration of 130 milligrams per kilogram (mg/kg). All the other compounds detected were below the New York State Department of Environmental Conservation (NYSDEC) recommended soil cleanup objectives.

Mercury speciation analytical results indicated that the sample contained no significant quantities of elemental mercury, mono-methyl mercury, or dimethyl mercury. When the sample was dissolved in an acid leach test, the mercury +2 ion leachate concentration was essentially the same as the total mercury concentration. Based on these results, the laboratory concluded that the sample was a chemical substrate contaminated with a mercuric or mercurous salt.

On November 17, 1994, the EPA Environmental Response Team (ERT) and the Response Engineering and Analytical Contractor (REAC) collected dust samples in each of the mobile homes at



the trailer park. The analytical results of the dust sampling indicated mercury concentrations ranging from 0.64 mg/kg to 26.8 mg/kg.

On November 28, 1994, Nepera, Inc. of Harriman, New York signed an Administrative Order on Consent (AOC) with EPA agreeing to fund relocation of the residents of the trailer park. Nepera has distributed relocation settlements to eligible residents. The amount of the settlement was based on federal relocation guidelines.

On January 9, 1995, verbal authorization was given by the EPA Director of the Emergency and Remedial Response Division to decontaminate, remove and dispose of the mobile homes, storage sheds and decks from the trailer park; disconnect water, sewer and electric utilities; remove heating oil and propane storage tanks; and fence the property and post warning signs. An Action Memorandum confirming verbal authorization was approved on February 27, 1996. For specific details refer to Polreps 1-3.

#### IV. RESPONSE INFORMATION

##### A. Situation

###### 1. Current situation

On May 18, ERRS began shipping trucks of mercury contaminated soil to GROWS Landfill in Morrisville PA. ERRS continued excavating and stockpiling soil for transportation and disposal (T&D).

###### 2. Removal actions to date

Excavation of contaminated material continued between truck loading. On May 18 while excavating waste in the southwest corner of the site, a sewer line was damaged. The sewer line was patched temporarily until supplies were available for permanent repair. The replacement pipe was supplied by the local sewer authority and repairs were completed on Wednesday, May 20, 1998.

On Tuesday, May 19, analytical results were received from the water samples collected on May 13. These results identified low levels of mercury, zinc, copper, and lead. After consulting the state, it was realized that the mercury level was above the discharge limits of 0.2 ug/kg. Options to filter or drop out the suspended solids are being pursued.



Water discharge to the local Public Operating Treatment Works was another option which has been denied due to their present operation above capacity.

On Friday, May 22, START collected two post excavation samples from the southwest quadrant of the Site. The analytical results indicated mercury concentrations were well below EPA established clean-up levels. A soil/sediment sample (RD-1) was also collected from west side of Route 17M, between the excavation area and the office trailer, to determine if a white powdered residue was the result of off-site migration of the mercury waste. Analysis of RD-1 revealed a mercury concentration of 0.05 mg/kg, which is below the level of 3.4 mg/kg typically found in the eastern United States and the site clean up level of 25 mg/kg.

On May 26-29, ERRS continued excavation and stockpiling operations. Due to equipment failure on Friday May 29, the excavator was decontaminated and a replacement excavator was ordered. Due to permit requirements for equipment transport, site work was temporarily suspended until Wednesday, June 3, when a replacement excavator was mobilized to the Site.

START conducted daily air monitoring with a miniram and occasional monitoring with an HNU and Jerome meter. No readings were observed above the action levels. START also conducted post excavation sampling as the excavation progressed. Twelve post excavation samples have been collected to date. One sample location concentration exceeded the 25 ppm cleanup level and the area was excavated an additional 6" to 1 foot. A second post excavation sample was collected in that location which revealed a mercury concentration below the cleanup level.

On May 27, a sediment sample was collected from the outfall of the culvert pipe on the east side of Route 17M, to determine if waste was migrating from the Site. The results of the sediment sample was well below the clean-up level at a concentration of 2.56 mg/kg. This was an increase from the sample collected in October 1994 which revealed a mercury concentration of 0.643. The culvert pipe going beneath 17M will be cleaned out prior to the demobilization of the project.

On May 29, a water filtration station, consisting of a 25 and 5 micron bag filter in series, was tested to filter out the suspended solids. The solids in the water are suspected of causing the elevated level of mercury in the water. START collected a sample of the filtered water for total mercury

The Office of Regional Council is reviewing available site documentation to determine whether there are any potentially responsible parties (PRPs).

- A. Continue excavation and T&D of contaminated soil.
- B. Dewater the excavation.
- C. Identify options for the disposal of water encountered in the excavation.
- D. Collect post excavation samples.
- E. Survey the wetland to obtain contours for restoration.

Due to the heavy rains the past week and perched water infiltrating the excavations, water collection/treatment/disposal will be an issue. Options for dealing with the water will be added to the scope of work.



## V. COST INFORMATION

The following are estimated costs for the removal action as of May 29, 1998:

	PROJECT CEILING	PREVIOUS COSTS	COSTS TO DATE	FUNDS REMAINING
ERRS (ERCS) Costs	\$1,028,400	\$102,000	\$128,400	\$798,000
START-UP Costs	\$ 81,400	\$19,700	\$10,100	\$ 51,600
Contingency	\$-209,500			\$209,500
EPA Cost	\$107,000	\$24,200	\$ 39,000	\$43,800
TOTAL PROJECT CEILING	\$1,426,300	\$145,900	\$177,500	\$ 1,102,900

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure, which the EPA may include in any claims for cost recovery.

## VI. DISPOSITION OF WASTE

Wastestream	Medium	Quantity	Containment- Migration Control	Treatment	Disposal
Non-hazardous soil, wood, PPE and debris	solid	1,042 tons	dump trailers	landfill	G.R.O.W.S. Landfill, Morrisville, PA